

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/007830 A2

(51) International Patent Classification⁷:

C12N

Y.F. [US/US]; c/o Mayo Medical Ventures, 200 First Street SW, Rochester, MN 55905-0001 (US).

(21) International Application Number:

PCT/US2004/022850

(74) Agents: DAVISON, Barry, L. et al.; Davis Wright Tremaine LLP, 2600 Century Square, 1501 Fourth Avenue, Seattle, WA 98101-1688 (US).

(22) International Filing Date: 14 July 2004 (14.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/487,553 14 July 2003 (14.07.2003) US

(71) Applicant (for all designated States except US): MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH [US/US]; 200 First Street SW, Rochester, MN 55905-0001 (US).

(72) Inventors; and

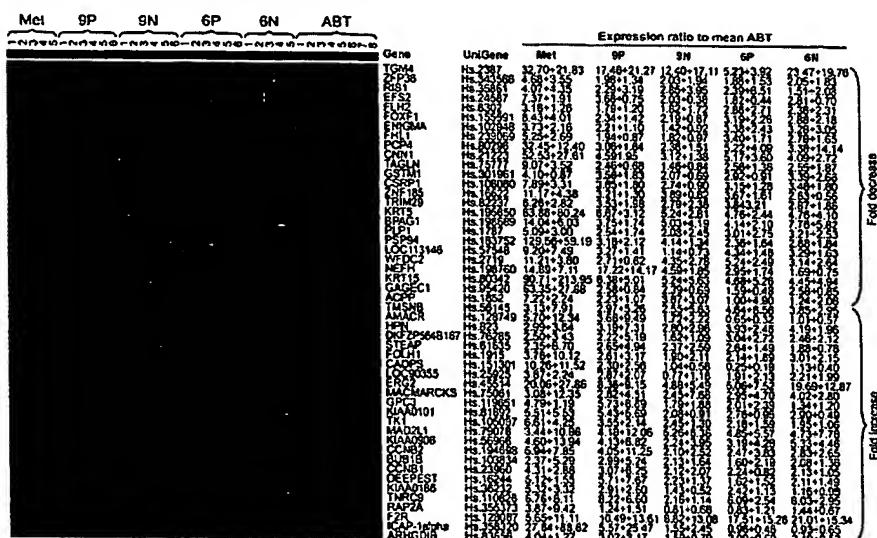
(75) Inventors/Applicants (for US only): VANAJA, Donkena, K. [IN/US]; c/o Mayo Medical Ventures, 200 First Street SW, Rochester, MN 55905-0001 (US). YOUNG, Charles,

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: METHODS AND COMPOSITIONS FOR DIAGNOSIS, STAGING AND PROGNOSIS OF PROSTATE CANCER



WO 2005/007830 A2

(57) Abstract: The present invention provides, inter alia, novel methods and compositions for the diagnosis, staging and prognosis of prostate cancer, based on DNA methylation and/or modulation of gene expression, including transcriptional silencing. Preferred diagnostic and/or prognostic nucleic acid and protein markers include at least one of: the differentially (relative to benign tissue) down-regulated sequences corresponding to zinc finger protein 185 (ZNF 185), prostate secretory protein (PSP94), bullous pemphigoid antigen (BPAG), supervillin (SVIL), proline rich membrane anchor 1 (PRIMA1), TU3A, FLJ14084, KIAA1210, Sorbin and SH3 domain containing 1 (SORBS1), and C21orf63; and the differentially up-regulated sequences MARCKS-like protein (MLP) SRY (sex determining region Y)-box 4 (SOX4), fatty acid binding protein 5 (FABP5), MAL2, and Erg-2.



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*